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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,628	03/15/2004	Manabu Sasaki	520.43638X00	8414
20457      7590      11/12/2008 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873				
EXAMINER SHEN, KEZHEN				
ART UNIT		PAPER NUMBER		
2627				
MAIL DATE		DELIVERY MODE		
11/12/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/799,628

**Applicant(s)**

SASAKI, MANABU

**Examiner**

Kezhen Shen

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/7/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 4 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

A Request for Continued Examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/7/2008 has been entered.

Applicant's arguments with respect to claims 1, 3-4 and 6 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naruse JP411016269A further in view of Uehigashi JP2002230795A and Watanabe et al. US 2002/0181356 A1.

Regarding claim 1, Naruse teaches an optical disk drive apparatus, for reading-out information from an optical disk 11 (Abstract and Fig. 1), having a plural number of information recording layers made up in a direction of rotation axis thereof (Abstract 1<sup>st</sup>

and 2<sup>nd</sup> recording layers of the optical disk), through irradiating a light beam upon the information recording layer, and for transferring the information read out to a host-computer (Abstract the data requested to read for the 1<sup>st</sup> layer are read out on the storage area of the buffer memory and transferred to a data processing part), responding to a transfer request from said host-computer (Abstract the data requested to read), comprising: a memory configured to memorize the information read out from said information recording layers (Abstract the data requested to read for the 1<sup>st</sup> layer are read out on the storage area of the buffer memory and transferred to a data processing part); and a processor 7 (Abstract controller, Fig. 1) configured to control said memory, wherein: said processor supervises accesses for reading out information to each of said plural number of the information recording layers (Abstract ) and memorizes following information which follows information (Abstract data on the 1<sup>st</sup> and 2<sup>nd</sup> recording layer), upon which a transfer request is made from said host-computer (Abstract the read request), into at least one of said plurality of predetermined areas of said memory (Abstract the storage area of the buffer memory). Naruse fails to teach said memory including a plurality of predetermined areas of changeable size and the transfer request made changes the size of each of said plurality of predetermined areas of said memory in dependence upon a frequency of the accesses for reading out information obtained through the supervision thereof.

However Uehigashi teaches the transfer request made in dependence upon a frequency of the accesses for reading out information obtained through the supervision thereof (Abstract reading of arbitrary data to the leading address having the highest

access frequency, and is made to stand by based on the leading address). Therefore, one of ordinary skill in the art is motivated to modify the processor and dual recording layer as taught by Naruse and the reading of data based on access frequency as taught by Uehigashi together to create a system of storing and reading out information based on the access frequency for the benefit of reducing the seek time of the optical pickup (Abstract to reduce a seek operation time of an optical pickup). Naruse and Uehigashi both fail to teach where said memory is changeable in size dependent on the access frequency.

However, Watanabe et al. teach a memory which is variable in size dependent on the frequency of errors occurring on the optical disc ([0033] [108]-[109]). Therefore, one of ordinary skill in the art is motivated to modify the system of storing and reading out information based on the access frequency as taught by Naruse and Uehigashi and the teachings of variable size memory as taught by Watanabe together to create a system of storing and reading out information based on the access frequency and for changing the size of the memory depending on the access of frequency for the benefit of efficiently utilizing the memory ([0114]).

Regarding claim 3, Naruse teaches the optical disk drive apparatus, as described in the claim 1, wherein said processor further makes management on each of information recorded in each layer of said optical disk, from which the information is read out (Abstract). Naruse fails to teach the processor to make management on the access frequency.

However Uehigashi teaches the optical disk drive apparatus wherein the processor makes management on the access frequency for each of information recorded in each layer of said optical disk (Abstract reading of arbitrary data to the leading address having the highest access frequency, and is made to stand by based on the leading address). Therefore, one of ordinary skill in the art is motivated to modify the processor and dual recording layer as taught by Naruse and the reading of data based on access frequency as taught by Uehigashi together to create a system of storing and reading out information based on the access frequency for the benefit of reducing the seek time of the optical pickup (Abstract to reduce a seek operation time of an optical pickup).

Regarding claim 4, the method described have been analyzed and rejected with respect to the apparatus of claim 1 above.

Regarding claim 6, the method described have been analyzed and rejected with respect to the apparatus of claim 3 above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kezhen Shen whose telephone number is (571) 270-1815. The examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kezhen Shen/  
Examiner, Art Unit 2627

/Joseph H. Feild/  
Supervisory Patent Examiner, Art  
Unit 2627